WEEKLY PROGRESS UPDATE FOR MARCH 1 – MARCH 5, 2004

EPA REGION I ADMINISTRATIVE ORDERS SDWA 1-97-1019 and 1-2000-0014

MASSACHUSETTS MILITARY RESERVATION TRAINING RANGE AND IMPACT AREA

The following summary of progress is for the period from March 1 through March 5, 2004.

1. SUMMARY OF ACTIONS TAKEN

Drilling progress as of March 5, 2004 is summarized in Table 1.

Boring Number	Purpose of Boring/Well	Total Depth (ft bgs)	Saturated Depth (ft bwt)	Completed Well Screens (ft bgs)
MW-307	J-2 Range (J2P-28)	331	224	
MW-310	J-2 Range (J2P-22)	322	237	171-181
MW-312	Demo Area 2 (D2P-6)	220	67	177-187
MW-313	J-2 Range (J2P-34)	337	215	
MW-315	J-1 Range (J1P-27)	318	193	
MW-318	J-2 Range (J2P-35)	310	189	
MW-319	J-2 Range (J2P-21)	310	217	

bwt = below water table

Completed well installation at MW-310 (J2P-22) and MW-312 (D2P-6); commenced well installation at MW-313 (J2P-34); and continued drilling at MW-318 (J2P-35) and MW-319 (J2P-21).

Samples collected during the reporting period are summarized in Table 2. Groundwater profile samples were collected from MW-318 and MW-319. Groundwater samples were collected from Bourne water supply and monitoring wells, a residential well, recently installed wells, and as part of the December round of the Draft 2003 Long-Term Groundwater Monitoring Program. An investigation-derived waste (IDW) sample was collected from the Granular Activated Carbon (GAC) treatment system. Soil samples were collected from grids at Demo Area 1, Target 23, and a transect at Target 23 in the Central Impact Area.

2. SUMMARY OF DATA RECEIVED

Rush data are summarized in Table 3. These data are for analyses that are performed on a fast turn around time, typically 1-5 days. Perchlorate and explosive analyses for monitoring wells, and perchlorate, explosive and volatile organic compound (VOC) analyses for groundwater profile samples, are conducted in this timeframe, as well as any analyses pursuant to a special request. The rush data are not validated, but are provided as an indication of the most recent preliminary results. Table 3 summarizes only detects, and does not show samples with nondetects.

The status of the explosive detections with respect to confirmation using Photo Diode Array (PDA) spectra is indicated in Table 3. PDA is a procedure that has been implemented for the explosive analysis, to reduce the likelihood of false positive identifications. Where the PDA status is "YES" in Table 3, the detected compound is verified as properly identified. Where the status is "NO", the identification of an explosive has been determined to be a false positive. Where the status is blank, PDA has not yet been used to evaluate the detection, or PDA is not applicable because the analyte is a VOC or perchlorate. Most explosive detections verified by PDA are confirmed to be present upon completion of validation. Table 3 includes the following detections:

Table 3 includes detections from the following areas:

Northwest Corner

- A groundwater sample from RSNW03 had a detection of perchlorate. The result was similar to previous sampling rounds.
- A groundwater sample from MW-301S had a detection of perchlorate. This is the first sampling event for this well and the result was more than 3 times the concentration of the profile sample from this interval.

Western Boundary

• Groundwater samples from 97-5 and MW-213M2, M3 and duplicate had detections of perchlorate. The results were similar to previous sampling rounds.

3. DELIVERABLES SUBMITTED

Weekly Progress Update for February 23, 2004 – February 27, 2004

03/05/2004

4. SCHEDULED ACTIONS

Scheduled actions for the week of March 1 include complete well installation at MW-313 (J2P-34); complete drilling at MW-318 (J2P-35) and MW-319 (J2P-21); and commence drilling at MW-316 (BP-6), MW-320 (NWP-15), MW-321 (J2P-24), and MW-322 (J2P-36). Groundwater sampling of Bourne water supply and monitoring wells and as part of the December round of the Draft 2003 Long-Term Groundwater Monitoring Plan will continue. Soil sampling will continue as part of the Central Impact Area Focused Investigation.

5. SUMMARY OF ACTIVITES FOR DEMO AREA 1

Installation and development of extraction and injection wells for the Groundwater RRA is ongoing. Installation of subsurface piping and well vaults for the Frank Perkins Road Extraction, Treatment and Recharge System will be completed this month. Installation of subsurface piping and electrical supply for the Pew Road Extraction, Treatment and Recharge System will also commence this month.

As part of the Soil RRA, excavation of contaminated soil within the Demo 1 depression continues. A total of 2,656 tons of contaminated soil have been processed as part of preliminary soil treatment activities. Preparation for the Proof of Performance testing is ongoing. Additional excavation and anomaly removal activities will be conducted next week.

SAMPLE_ID	GIS_LOCID	LOGDATE	SAMP_TYPE	SBD	SED	BWTS	BWTE	
4036000-01G-A	4036000-01G	03/01/2004	GROUNDWATER	38	69.8	6	12	
4036000-06G-A	4036000-06G	03/01/2004	GROUNDWATER	108	128	6	12	
58MW0002-A	58MW0002	03/02/2004	GROUNDWATER	121.2	126.2	0	5	
58MW0003-A	58MW0003	03/02/2004	GROUNDWATER	118.1	124	0	5	
58MW0006E-A	58MW0006E	03/03/2004	GROUNDWATER	109.6	119.6	0	10	
58MW0009C-A	58MW0009C	03/05/2004	GROUNDWATER	168.21	173.21	41	47	
58MW0009E-A	58MW0009E	03/05/2004	GROUNDWATER	133.4	138.4	6.5	11.5	
58MW0009E-D	58MW0009E	03/05/2004	GROUNDWATER	133.4	138.4	6.5	11.5	
58MW0011D-A	58MW0011D	03/04/2004	GROUNDWATER	175.4	180.4	49.5	54.5	
58MW0016B-A	58MW0016B	03/05/2004	GROUNDWATER	151.09	160.74	28.5	38.5	
58MW0016C-A	58MW0016C	03/05/2004	GROUNDWATER	116.7	126.33	0	10	
58MW0018A-A	58MW0018A	03/04/2004	GROUNDWATER	202.7	211.7	60.85	69.85	
58MW0018B-A	58MW0018B	03/04/2004	GROUNDWATER	175.9	185.58	34.55	44.55	
90MP0060C-A	90MP0060C	03/01/2004	GROUNDWATER	126.52	129.02			
90MW0003-A	90MW0003	03/03/2004	GROUNDWATER	144	149	52.11	57.11	
90MW0005-A	90MW0005	03/03/2004	GROUNDWATER	184	189	89.03	94.03	
90MW0006-A	90MW0006	03/03/2004	GROUNDWATER	129	134	52.85	57.85	
90MW0011-A	90MW0011	03/04/2004	GROUNDWATER	46.5	51.5	34.8	39.8	
90MW0101A-A	90MW0101A	03/03/2004	GROUNDWATER	112.69	117.5	104.4	109.4	
90MW0102A-A	90MW0102A	03/03/2004	GROUNDWATER	112.9	117.7	108.2	113.2	
MW-300M2-	MW-300	03/03/2004	GROUNDWATER	197.23	207.23	94.23	94.23	
MW-300M3-	MW-300	03/03/2004	GROUNDWATER	135.31	145.31	32.31	32.31	
OW-1-A	OW-1	03/02/2004	GROUNDWATER	126	136	0	10	
OW-2-A	OW-2	03/02/2004	GROUNDWATER	175	185	48.78	58.78	
OW-6-A	OW-6	03/02/2004	GROUNDWATER	175	185	46.8	56.8	
OW-6-D	OW-6	03/02/2004	GROUNDWATER	175	185	46.8	56.8	
RSNW03-A	RSNW03	03/03/2004	GROUNDWATER					
W02-13M1A	02-13	03/01/2004	GROUNDWATER	98	108	58.33	68.33	
W02-13M1D	02-13	03/01/2004	GROUNDWATER	98	108	58.33	68.33	
W02-13M2A	02-13	03/01/2004	GROUNDWATER	83	93	44.2	54.2	
W02-13M3A	02-13	03/01/2004	GROUNDWATER	68	78	28.3	38.3	
W107M1A	MW-107	03/03/2004	GROUNDWATER	155	165	35	45	
W107M2A	MW-107	03/02/2004	GROUNDWATER	125	135	5	15	
W158M2A	MW-158	03/05/2004	GROUNDWATER	124.5	134.5	37	47	
W162M1A	MW-162	03/01/2004	GROUNDWATER	190.5	200.5	114.28	124.28	

Profiling methods may include: Volatiles, Explosives, and Perchlorate Groundwater methods include: Volatiles, Semivolatiles, Explosives, Pesticides, Herbicides, Metals, Perchlorate and Wet Chemistry

Other Sample Types methods are variable

SBD = Sample Begin Depth, measured in feet bgs

SED = Sample End Depth, measured in feet bgs

BWTS = Depth below water table, start depth, measured in feet

SAMPLE_ID	GIS_LOCID	LOGDATE	SAMP_TYPE	SBD	SED	BWTS	BWTE
W162M2A	MW-162	03/01/2004	GROUNDWATER	125.5	135.5	49.28	59.28
W162M3A	MW-162	03/01/2004	GROUNDWATER	85.5	95.5	9.28	19.28
W165M1A	MW-165	03/01/2004	GROUNDWATER	184.5	194.5	106	116
W165M2A	MW-165	03/01/2004	GROUNDWATER	124.5	134.5	46	56
W165M2D	MW-165	03/01/2004	GROUNDWATER	124.5	134.5	46	56
W165M3A	MW-165	03/01/2004	GROUNDWATER	94.5	104.5	16	26
W169M2A	MW-169	03/01/2004	GROUNDWATER			113	118
W171M1A	MW-171	03/04/2004	GROUNDWATER	141	146	143	148
W171M2A	MW-171	03/04/2004	GROUNDWATER	81	86	83	88
W171M3A	MW-171	03/04/2004	GROUNDWATER	29	34	31	36
W187DDA	MW-187	03/05/2004	GROUNDWATER	306	316	199.5	209.5
W205DDA	MW-205	03/02/2004	GROUNDWATER	266	276	167.6	177.6
W257M1A	MW-257	03/02/2004	GROUNDWATER	290	300	145.52	155.52
W257M2A	MW-257	03/02/2004	GROUNDWATER	195	205	51.27	61.27
W265M1A	MW-265	03/03/2004	GROUNDWATER	265	275	137.65	147.65
W265M2A	MW-265	03/03/2004	GROUNDWATER	255	235	97.6	107.6
W265M3A	MW-265	03/03/2004	GROUNDWATER	200	210	72.44	82.44
W286M1A	MW-286	03/04/2004	GROUNDWATER	259	269	135.61	145.61
W286M2A	MW-286	03/04/2004	GROUNDWATER	205	215	81.42	91.42
W286SSA	MW-286	03/04/2004	GROUNDWATER	122	132	0	10
W32MMA	MW-32	03/04/2004	GROUNDWATER	161.5	171.5	65	75
W32SSA	MW-32	03/04/2004	GROUNDWATER	146.5	151.5	50	55
W33DDA	MW-33	03/04/2004	GROUNDWATER	181.5	186.5	85	90
W33MMA	MW-33	03/05/2004	GROUNDWATER	161.5	171.5	65	75
W33SSA	MW-33	03/04/2004	GROUNDWATER	146.5	151.5	50	55
W34M1A	MW-34	03/05/2004	GROUNDWATER	151	161	73	83
W34M2A	MW-34	03/05/2004	GROUNDWATER	131	141	53	63
W34M3A	MW-34	03/05/2004	GROUNDWATER	111	121	33	43
W36M1A	MW-36	03/03/2004	GROUNDWATER	151	161	74	84
W36M2A	MW-36	03/03/2004	GROUNDWATER	131	141	54	64
W36M2D	MW-36	03/03/2004	GROUNDWATER	131 141		54	64
W36SSA	MW-36	03/03/2004	GROUNDWATER	73	83	0	10
W37M1A	MW-37	03/01/2004	GROUNDWATER	181	191	62	72
W37M2A	MW-37	03/01/2004	GROUNDWATER	145	155	26	36
W37M3A	MW-37	03/01/2004	GROUNDWATER	130	140	11	21

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SAMPLE_ID	GIS_LOCID	LOGDATE	SAMP_TYPE	SBD	SED	BWTS	BWTE
W47DDA	MW-47	03/05/2004	GROUNDWATER	194	204	100	110
W47M1A	MW-47	03/05/2004	GROUNDWATER	169	179	75	85
W47M2A	MW-47	03/05/2004	GROUNDWATER	131.5	141.5	38	48
W71SSA	MW-71	03/01/2004	GROUNDWATER	158	168	0	10
W74M1A	MW-74	03/02/2004	GROUNDWATER	170	180	76	86
W74M2A	MW-74	03/02/2004	GROUNDWATER	125	135	31	41
W74M3A	MW-74	03/02/2004	GROUNDWATER	100	110	6	16
W85M1A	MW-85	03/02/2004	GROUNDWATER	137.5	147.5	22	32
W85M1D	MW-85	03/02/2004	GROUNDWATER	137.5	147.5	22	32
W85SSA	MW-85	03/02/2004	GROUNDWATER	116	126	1	11
DW030404-NV	GAC WATER	03/04/2004	IDW	0	0		
MW-318-01	MW-318	03/01/2004	PROFILE	130	130	9	9
MW-318-02	MW-318	03/01/2004	PROFILE	140	140	19	19
MW-318-03	MW-318	03/01/2004	PROFILE	150	150	29	29
MW-318-03FD	MW-318	03/01/2004	PROFILE	150	150	29	29
MW-318-05	MW-318	03/02/2004	PROFILE	160	160	39	39
MW-318-06	MW-318	03/02/2004	PROFILE	170	170	49	49
MW-318-07	MW-318	03/02/2004	PROFILE	180	180	59	59
MW-318-09	MW-318	03/03/2004	PROFILE	200	200	69	69
MW-318-10	MW-318	03/03/2004	PROFILE	210	210	79	79
MW-318-11	MW-318	03/03/2004	PROFILE	220	220	89	89
MW-318-12	MW-318	03/03/2004	PROFILE	230	230	99	99
MW-318-13	MW-318	03/03/2004	PROFILE	240	240	109	109
MW-318-13FD	MW-318	03/03/2004	PROFILE	240	240	109	109
MW-318-14	MW-318	03/03/2004	PROFILE	250	250	119	119
MW-318-15	MW-318	03/03/2004	PROFILE	260	260	129	129
MW-318-16	MW-318	03/03/2004	PROFILE	270	270	139	139
MW-318-17	MW-318	03/03/2004	PROFILE	280	280	149	149
MW-318-19	MW-318	03/04/2004	PROFILE	290	290	159	159
MW-318-21	MW-318	03/05/2004	PROFILE	300	300	169	169
MW-319-11	MW-319	03/01/2004	PROFILE	200	200	107	107
MW-319-12	MW-319	03/01/2004	PROFILE	210	210	117	117
MW-319-13	MW-319	03/02/2004	PROFILE	220	220	127	127
MW-319-13FD	MW-319	03/02/2004	PROFILE	220	220	127	127
MW-319-14	MW-319	03/02/2004	PROFILE	230	230	137	137

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SAMPLE_ID	GIS_LOCID	LOGDATE	SAMP_TYPE	SBD	SED	BWTS	BWTE	
MW-319-15	MW-319	03/02/2004	PROFILE	240	240	147	147	
MW-319-16	MW-319	03/02/2004	PROFILE	250	250	157	157	
MW-319-17	MW-319	03/03/2004	PROFILE	260	260	167	167	
MW-319-19	MW-319	03/03/2004	PROFILE	280	280	187	187	
MW-319-21	MW-319	03/04/2004	PROFILE	290	290	197	197	
MW-319-22	MW-319	03/04/2004	PROFILE	300	300	207	207	
MW-319-23	MW-319	03/05/2004	PROFILE	310	310	217	217	
HC115C1AAA	115C	03/04/2004	SOIL GRID	0	0.25			
HC115D1AAA	115D	03/03/2004	SOIL GRID	0	0.25			
HC115D1AAD	115D	03/03/2004	SOIL GRID	0	0.25			
HC115E1AAA	115E	03/03/2004	SOIL GRID	0	0.25			
HC115F1AAA	115F	03/04/2004	SOIL GRID	1	2			
HC115F1BAA	115F	03/04/2004	SOIL GRID	2	3			
HC115F1CAA	115F	03/04/2004	SOIL GRID	3	4			
HC115F1DAA	115F	03/04/2004	SOIL GRID	4	5			
HC115F1EAA	115F	03/04/2004	SOIL GRID	5	6			
HC115F1FAA	115F	03/05/2004	SOIL GRID	6	7			
HC115F1GAA	115F	03/05/2004	SOIL GRID	7	8			
HC115TA1AAA	115TA	03/03/2004	SOIL GRID	0	0.25			
HC115TB1AAA	115TB	03/03/2004	SOIL GRID	0	0.25			
HC115TC1AAA	115TC	03/03/2004	SOIL GRID	0	0.25			
HC115TD1AAA	115TD	03/03/2004	SOIL GRID	0	0.25			
HC115TE1AAA	115TE	03/03/2004	SOIL GRID	0	0.25			
HC115TF1AAA	115TF	03/03/2004	SOIL GRID	0	0.25			
HC115TG1AAA	115TG	03/03/2004	SOIL GRID	0	0.25			
HC115TG1AAD	115TG	03/03/2004	SOIL GRID	0	0.25			
HC115TH1AAA	115TH	03/03/2004	SOIL GRID	0	0.25			
HC115TI1AAA	115TI	03/03/2004	SOIL GRID	0	0.25			
HC115TJ1AAA	115TJ	03/03/2004	SOIL GRID	0	0.25			
A5-NW02	A5-NW02	03/01/2004	SOIL_GRID	0	0.5			
A5-SW02	A5-SW02	03/01/2004	SOIL_GRID	0	0.5			
B4-NE02	B4-NE02	03/02/2004	SOIL_GRID	0	0.5			
B4-SE02	B4-SE02	03/02/2004	SOIL_GRID	0	0.5			
C3-NE02	C3-NE02	03/01/2004	SOIL_GRID	0	0.5			
C4-NW01	C4-NW01	03/01/2004	SOIL_GRID	0	0.5			

Profiling methods may include: Volatiles, Explosives, and Perchlorate Groundwater methods include: Volatiles, Semivolatiles, Explosives, Pesticides, Herbicides, Metals, Perchlorate and Wet Chemistry

Other Sample Types methods are variable

SBD = Sample Begin Depth, measured in feet bgs

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BWTS = Depth below water table, start depth, measured in feet

SAMPLE_ID	GIS_LOCID	LOGDATE	SAMP_TYPE	SBD	SED	BWTS	BWTE
C7-NE02	C7-NE02	03/02/2004	SOIL_GRID	0	0.5		
D7-SE02	D7-SE02	03/02/2004	SOIL_GRID	0	0.5		

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BWTS = Depth below water table, start depth, measured in feet

TABLE 3 DETECTED COMPOUNDS-UNVALIDATED SAMPLES COLLECTED 02/06/04 - 03/06/04

SAMPLE ID	LOCID OR WELL	SAMPLED	SAMP TYPE	SBD	SED	BWTS	BWTE	METHOD	ANALYTE	PDA
RSNW03-A	RSNW03	03/03/2004	GROUNDWATER					E314.0	PERCHLORATE	
W213M2A	MW-213	02/24/2004	GROUNDWATER	89	99	41.15	51.15	E314.0	PERCHLORATE	
W213M3A	MW-213	02/24/2004	GROUNDWATER	77	82	29.38	34.38	E314.0	PERCHLORATE	
W213M3D	MW-213	02/24/2004	GROUNDWATER	77	82	29.38	34.38	E314.0	PERCHLORATE	
W301SSA	MW-301	02/25/2004	GROUNDWATER	97	107	1.32	11.32	E314.0	PERCHLORATE	
XXM975-A	97-5	02/25/2004	GROUNDWATER	84	94	76	86	E314.0	PERCHLORATE	

DATA REPORTED REFLECT CURRENT DATABASE FOR SAMPLES COLLECTED IN SPECIFIED TIMEFRAME. NOT ALL RESULTS ARE COMPLETE.

SBD = SAMPLE COLLECTION BEGIN DEPTH IN FEET BELOW GROUND SURFACE

SED = SAMPLE COLLECTION END DEPTH IN FEET BELOW GROUND SURFACE

BWTS = DEPTH BELOW WATER TABLE, START DEPTH, MEASURED IN FEET

BWTE = DEPTH BELOW WATER TABLE, END DEPTH, MEASURED IN FEET

PDA/YES = Photo Diode Array, Detect Confirmed

PDA/NO = Photo Diode Array, Detect Not Confirmed

* = Interference in sample

+ = PDAs are not good matches